FLIPR Penta High-Throughput Cellular Screening System with ScreenWorks Software

Welcome to the family of Molecular Devices FLIPR® Penta system users. This document provides you with the information required to prepare your facility for the installation of your new FLIPR Penta system.

Environment requirements

The FLIPR Penta system is designed to operate indoors under laboratory conditions at 18°C to 30°C (64°F to 86°F) with 20% to 75% non-condensing humidity. As with any precision optical instrument, take care to maintain a low-dust, low-vibration environment. Temperature and humidity extremes can compromise performance.

Avoid the following lab conditions or situations:

• Avoid installation in or near a room with high-motion equipment, including vacuum pumps, centrifuges, elevators, air conditioners, or heaters.

• Avoid installation directly in the path of air vents. Sudden temperature changes and air-flow vibrations can degrade performance.

• Avoid installation near external vibration caused by trains or excessive vehicle traffic.

• Avoid installation in any room with noticeable vibration on floors or walls.

• Avoid installation in direct sunlight.

• Avoid installation within 5 m (16.4 ft) from a refrigerator.

• Avoid installation within 2 m (6.5 ft) from a door.

Power requirements

The FLIPR Penta system consumes 5 A continuous and 9 A peak of 110 V power and requires 90-240 VAC power source at 50-60 Hz, which equates to 2.5 A continuous and up to 4.5 A peak at 240 VAC/50 Hz. The system ships with a power cord appropriate for the receiving country.

Please Note: The power supply has a circuit breaker rated at 15 A because the inrush current has been measured to be as high as 13 A at 110-120 VAC. Customers with 240 VAC should inform their facilities engineers that a breaker may have to be installed for their electrical lines to handle an inrush current 2x 13 A current. Molecular Devices recommends a D curve circuit breaker for this equipment. Additional shared outlets are required for computer and monitor. A power strip, not included, is acceptable to provide the additional outlets for the computer and monitor.
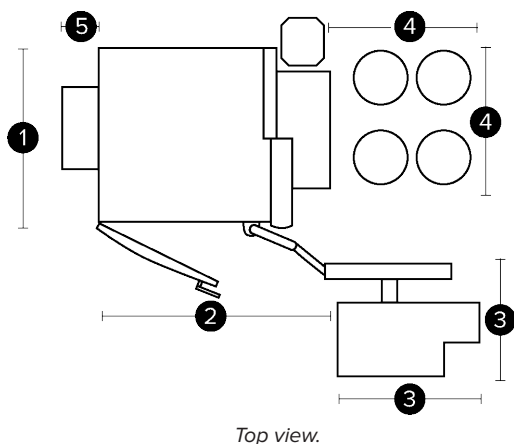
Installation supplies

Only a Molecular Devices engineer is authorized to install or uninstall the instrument.

You must provide the following to assist the instrument installation:

• Online power conditioning UPS (optional)

• Power strip (optional)

• Deionized water

• Microplates for each pipettor head type

• Storage space for accessories and consumables when not in use

Space and table requirements

The FLIPR Penta system without automation robotics requires the following space:

Top view.

Item	Description
1	Instrument Depth: 69 cm (27 in.) To open the door, add: 76 cm (30 in.)
2	Instrument Width: 99 cm (39 in.)
3	Monitor and Keyboard Tray Extended: 102 cm (40 in.)
4	Chiller and Tip Wash Bottles Space Needed: 81 cm (32 in.)
5	Optional FLIPR Cycler Width: 23 cm (9 in.)

Dimension	Minimum requirement
Vertical Clearance	178.44 cm (70.25 in.)
Weight Rating	386 kg (850 lb)

The front door of the instrument needs 76 cm (30 in.) to open for access to the five-position stage, pipettor, and filters.

The instrument is designed with rolling casters so it can be moved when necessary. Leveling feet are also installed on the lower instrument chassis. These feet are typically used for stabilizing the instrument when integrated with a robot, but can also be used to establish a uniform instrument deck level when the lab floor is not flat.

The external ScreenWorks® software host computer, is mounted on the right side of the instrument cabinet. The monitor, keyboard, and mouse are installed on an adjustable arm attached to the front right side of the instrument cabinet.

The instrument cabinet needs user access space of 122 cm (48 in.) in front, 61 cm (24 in.) behind and 25 cm (10 in.) to the right for servicing the instrument.

Facility receiving requirements

Only Molecular Devices personnel are authorized to open the crate(s).

Your FLIPR Penta system comes in two crates, one for the instrument and one for accessories. The instrument crate can be transported by forklift or pallet jack through double doors of normal height. The accessory crate fits through a single standard door. The instrument crate requires 518.2 cm (17 ft.) of space to remove the instrument from the crate. If available space is limited, provide accommodations for the instrument to be uncrated before rolling it on its casters to the final lab location.

FLIPR Penta system crates (2 crates)

Dimensions (cm/in.)	L	W	H	Weight (kg/lbs)
Instrument crate	160/63	105/41	204/80	544.3/1,200
Accessory crate	122/48	102/40	87/34	73/160

All boxes should be stored indoors and protected from environmental extremes until the equipment is removed.

Crate storage	Specification
Ambient Storage Conditions	Temperature: -20°C to +60°C (-4°F to 140°F) Relative Humidity: 15% to 75% relative humidity (noncondensing)

Documentation

The ScreenWorks software includes Help links to the following guides that you can access from within the software. In addition, you can access the guides on the Knowledge Base at the Molecular Devices Support website:

- ScreenWorks Software Release Notes
- FLIPR Penta Pre-Installation Guide
- FLIPR Penta Quick Start Guide
- FLIPR Penta User Guide
- FLIPR Penta Protocol Guide
- ScreenWorks Software Peak Pro Version 2.0 Quick Start Guide

Support and service

For support or service, please contact us at:

Web: **www.moleculardevices.com/support**
www.moldev.com/support